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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

BANANKHAH, MAJID A

ART UNIT PAPER NUMBER

2127

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14

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/595,533

Applicant(s)

MEYER ET AL.

Examiner

Majid A Banankhah

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27-67 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 27-67 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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1. This final office action is in response to amendment A, paper number 11, dated November 17, 2003, and Amendment B, paper number 13, dated December 09, 2003. Application's argument has been fully considered but they are moot in view of the new ground of rejection.

2. The disclosure is objected to because of the following informalities: There are two claim 28 in the specification as amended in the amendment A, file November 17, 2003. Appropriate correction is required.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 27, 45, 46, 49, 51, and 67 are rejected under 35 U.S.C. 102(e) as being anticipated by Borsato (U.S. Pat. No. 6,554,891 hereinafter Borsato).

Per claims 27, and 67, Borsato teaches of a system for providing access to a first computer with a dynamic IP address from a remote computer (*See Borsato, col. 3, lines 18-55, As will be discussed, this reduces the number of requests which must be managed by the central database. In another embodiment of the invention, dynamic DNS updates are possible and IP addressing is integrated with DNS and DHCP management. All configuration changes, whether made statically, dynamically or at remote locations, are registered in the central database and automatically distributed to the appropriate servers. Also, -DHCP redundancy guarantees that a DHCP server is always serving a given range of client addresses. Primary and backup DHCP servers serve the same address range which ensures that DHCP clients in the range can always acquire an IP address*), comprising:

a) a first computer linked to the Internet and associated with a dynamic IP address, the first computer being further linked to a data communication facility, wherein the data communication facility is adopted to create and send a communication that includes data for locating the first computer (*col. 5, lines 39-68, continued on col. 6, lines 1-10, Once the DNS servers 202A-N and*

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*DHCP servers 203A-N **establish a link** with the server manager 201, the servers can issue requests for configuration information from the central database 204 or send updated configuration information to the central database 204. The server manager 201 synchronizes all of the requests and updates from the servers and transmits them to the central database 204. The server manager 201 monitors all the DNS servers 202A-N and DHCP servers 203A-N on the network from a single point and acts as a single pipeline to the central database 204. For example, when a new client 208 sends a request for an IP address to a DHCP server 203A, the DHCP server 203A determines if it can send configuration information to the requesting client 208. If the DHCP server 203A can give an IP address and configuration information to the client 208, it sends host configuration information and an IP address to the client 208. The DHCP server 203A automatically registers the new domain name, the IP address and the host configuration information with the central database 204 through the server manager 201)[emphasis added]; and*

b) second locator server computer linked to the internet, associated with the static IP address, and including a location facility for locating the first computer (col. 5, lines 39-68, continued on col. 6, lines 1-2, For example, when a new client 208 sends a request for an IP address to a DHCP server 203A, the DHCP server 203A determines if it can send configuration information to the requesting client 208. If the DHCP server 203A can give an IP address and configuration information to the client 208, it sends host configuration information and an IP address to the client 208. The DHCP server 203A automatically registers the new domain name, the IP address and the host configuration information with the central database 204 through the service manager 201); and

c) a remote computer linked to the internet, the remote computer including a communication facility (col. 3, lines 18-55, All configuration changes, whether made statically, dynamically or at remote locations, are registered in the central database and automatically distributed to the appropriate servers);

wherein the communication facility enables the remote computer to connect to the second locator server computer, and to provide an identifier of the first computer to the second locator server so as to request communication with the first computer, and wherein the second locator server computer locates the first computer via its dynamic IP address communication session to be set up between the first computer and the remote computer (col. 3, lines 17-55, FIG. 2 illustrates a TCP/IP network configured in accordance with the methods and apparatus discussed herein. Although described with reference to certain specific embodiments, those skilled in the art will recognize that the present invention may be practiced without some or all of these details and further, the present invention may be utilized in alternative networks. In one embodiment, the network can contain a plurality of servers that must access the central database in order to obtain configuration information. In order to reduce the number communication channels going to the central database, a server manager can be introduced. The server manager would communicate directly with the plurality of servers and the central database and transmit any

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requests from the servers to the central database. Therefore, the central database only would need to communicate with the server manager. As will be discussed, this reduces the number of requests, which must be managed by the central database. In another embodiment of the invention, dynamic DNS updates are possible and IP addressing is integrated with DNS and DHCP management. All configuration changes, whether made statically, dynamically or at remote locations, are registered in the central database and automatically distributed to the appropriate servers. Also, DHCP redundancy guarantees that a DHCP server is always serving a given range of client addresses. Primary and backup DHCP servers serve the same address range, which ensures that DHCP clients in the range can always acquire an IP address. Internet Service Providers (ISP) can benefit from the present invention because management of IP address space is simplified. DHCP servers can act as both DHCP and Bootstrap Protocol (BootP) servers which enables ISPs to integrate the static allocation of IP addresses to cable modems through BootP with the dynamic allocation of IP addresses to end users through DHCP. The present invention also will be of great importance in such applications as Voice/Fax Over IP and Policy-Enabled Networking where a user needs an authenticated address to access network services).

Per claims 45, and 49, the reference of Borsato teaches:

a system for providing access to a first computer from a remote computer, wherein the first computer is linked to the internet and associated with a dynamic IP address, the first computer being further linked to a data communication facility, the system comprising (*See Borsato, col. 3, lines 18-55, As will be discussed, this reduces the number of requests which must be managed by the central database. In another embodiment of the invention, dynamic DNS updates are possible and IP addressing is integrated with DNS and DHCP management. All configuration changes, whether made statically, dynamically or at remote locations, are registered in the central database and automatically distributed to the appropriate servers. Also, DHCP redundancy guarantees that a DHCP server is always serving a given range of client addresses. Primary and backup DHCP servers serve the same address range which ensures that DHCP clients in the range can always acquire an IP address*):

a) a locator server computer linked to internet, associated with a static IP address (*Col. 3, lines 47-55, DHCP servers can act as both DHCP and Bootstrap Protocol, BootP servers which enables ISPs to integrate the static allocation of IP addresses to cable modems through BootP with the dynamic allocation of IP addresses to end users through DHCP. The present invention also will be of great importance in such applications as Voice/Fax Over IP and Policy-Enabled Networking where a user needs an authenticated address to access network services*), and including a location facility for locating the first computer,

wherein the locator server computer is responsive to a request for communication from a remote computer so as to enable the remote computer to connect to the locator server computer, and to provide an identifier of the first computer; and wherein, in response, the locator facility locates the first computer via its dynamic IP address communication session, and thereby enables a

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communication session to be set up between the first computer and the remote computer (col. 5, lines 7-29, FIG. 3 provides a flow diagram illustrating steps utilized in the described embodiment for a server to server manager login process. The login process is not unique to one type of server and can be used by any server attempting to establish a communication channel with the server manager 201. First, the one or more DNS servers 202A-N and DHCP servers 203A-N establish a TCP link to the server manager 201, step 301. Next, each server 202A-N, 203A-N issues a login request by providing a user id and a password to the server manager 201, step 302. The password for each server 202A-N, 203A-N is only known by each individual server and the server manager 201. The server manager 201 validates the user id and password by using MD5, which is described in detail in Rivest, R., "The MD5 Message-Digest Algorithm," Networking Group Request For Comments (RFC) 1331, April 1992, to compute a digest value, step 303. If the password is correct, the server, for example a DNS server 202A, is logged in to the server manager 201, step 305. If the password is incorrect, the login fails and the server manager 201 drops the TCP link, step 304. In order to retry the login sequence, the server 202A must reinitiate a TCP link to the server manager 201 and start the login process from the beginning, step 301).

Per claims 46, and 51, a method of providing access to a first computer linked to the Internet and associated with a dynamic IP address from a remote computer, the method comprising the steps of:

a) registering the first computer with a locator server computer, the locator server computer being linked to the internet, associated with a static IP address, and including a location facility for locating the first computer (See Borsato, col. 3, lines 18-55, As will be discussed, this reduces the number of requests which must be managed by the central database. In another embodiment of the invention, dynamic DNS updates are possible and IP addressing is integrated with DNS and DHCP management. **All configuration changes, whether made statically, dynamically or at remote locations, are registered in the central database and automatically distributed to the appropriate servers.** Also, DHCP redundancy guarantees that a DHCP server is always serving a given range of client addresses. Primary and backup DHCP servers serve the same address range which ensures that DHCP clients in the range can always acquire an **IP address**, and Col. 3, lines 47-55, DHCP servers can act as both DHCP and Bootstrap Protocol, BootP servers which enables ISPs to **integrate the static allocation of IP addresses to cable modems through BootP with the dynamic allocation of IP addresses to end users through DHCP.** The present invention also will be of great importance in such applications as Voice/Fax Over IP and Policy-Enabled Networking where a user needs an authenticated address to access network services);

b) connecting from the remote computer to the locator server computer, thereby requesting communication with the first computer from the remote computer (col. 10, lines 15-20, For example, the root of an Internet address is at the top and the common name associated

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with the user is at the bottom. The LDAP database 210 is accessible through an open, standards based protocol such as TCP);

*c) the locator server computer, in response, locating the first computer via its dynamic IP address communication session (col. 4, lines 29-37, In the described embodiment, the one or more **DNS servers 202A-N** are Berkeley Internet Name Domain (BIND) 4.9.5 DNS servers, BIND 8.1.1 **DNS servers or the like**. These servers 202A-N communicate with the central database 204 through the server manager 201. Each DNS server is coupled to the server manager 201 through a TCP link. The TCP links from the servers 202A-N to the server manager 201 enable **dynamic DNS updates** and dynamic DNS reconfiguration);*

*d) the locator server computer thereby setting up a communication session between the first computer and the remote computer (See Fig. 3, **DNS SERVER 202A, DHCP SERVER 203A, SERVER MANAGER 201, CLIENT 208, LDAP DATABUS 210, AND CENTRAL DATABASE 204**).*

Per claim 53, the reference of Borsato teaches of database for locating the address of the first computer (See, Fig. 2A, 204, CENTRAL DATABASE).

Per claim 54, Borsato teaches of communication settings associated with the data communication program (See col. 5, lines 39-68, continued on col. 6, lines 1-10, *Once the DNS servers 202A-N and DHCP servers 203A-N **establish a link** with the server manager 201, the servers can issue requests for configuration information from the central database 204 or send updated configuration information to the central database 204. The server manager 201 synchronizes all of the requests and updates from the servers and transmits them to the central database 204*).

Per claim 55, Borsato teaches of current location of the first computer to the locator server (See, col. 3, lines 18-55, *Also, DHCP redundancy guarantees that a DHCP server is always serving a given range of client addresses. Primary and backup DHCP servers serve the same address range which ensures that DHCP clients in the range can always acquire an **IP address***).

Per claim 56, current communication session of the first computer to the second computer is taught by Borsato (col. 9, lines 55-68, continued on col. 10, lines 1-30, *FIG. 8 provides a flow diagram which illustrates a method of the described embodiment for authenticating a user and binding the user to their current address. First a client 208 requests an IP address from the DHCP server 203N on the network, step 801. The DHCP server 203N dynamically assigns the client 208 an IP address before it has been authenticated, step 80.*).

Per claims 57-58, the reference of Borsato teaches of interface, and data generating facility linked to the data base (See Borsato, col. 5, lines 39-68, continued on col. 6, lines 1-10, *Once the DNS servers 202A-N and DHCP servers 203A-N **establish a link** with the server manager 201, the servers can issue requests for configuration information from the central database 204 or*

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send updated configuration information to the central database 204. The server manager 201 synchronizes all of the requests and updates from the servers and transmits them to the central database 204. The server manager 201 monitors all the DNS servers 202A-N and DHCP servers 203A-N on the network from a single point and acts as a single pipeline to the central database 204. For example, when a new client 208 sends a request for an IP address to a DHCP server 203A, the DHCP server 203A determines if it can send configuration information to the requesting client 208. If the DHCP server 203A can give an IP address and configuration information to the client 208, it sends host configuration information and an IP address to the client 208. The DHCP server 203A automatically registers the new domain name, the IP address and the host configuration information with the central database 204 through the server manager 201).

Per claims 59-60, the reference of Borsato, teaches of messaging facility and the contacting information facility (See, col. 5, lines 7-29, *The password for each server 202A-N, 203A-N is only known by each individual server and the server manager 201. The server manager 201 validates the user ID and password by using MD5, which is described in detail in Rivest, R., "The MD5 message-Digest Algorithm," Networking Group Request For Comments (RFC) 1331, April 1992, to compute a digest value, step 303. If the password is correct, the server, for example a DNS server 202A, is logged in to the server manager 201, step 305).*

Per claims 61-63, and 64-66, Borsato teaches of Internet and inherently teaches of remote message management, managing message, and e-mail, and facsimile facility (See, Borsato, teaches of internet in col. 3, lines 18-55, *Primary and backup DHCP servers serve the same address range which ensures that DHCP clients in the range can always acquire an IP address. Internet Service Providers (ISP) can benefit from the present invention because management of IP address space is simplified. DHCP servers can act as both DHCP and Bootstrap Protocol (BootP) servers which enables ISPs to integrate the static allocation of IP addresses to cable modems through BootP with the dynamic allocation of IP addresses to end users through DHCP. The present invention also will be of great importance in such applications as Voice/Fax Over IP and Policy-Enabled Networking where a user needs an authenticated address to access network services).*

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 28-44, 47-48, 50, and 52 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the

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elements. See MPEP § 2172.01. The omitted elements are: the claims are rejected because they are dependent on a canceled base claims.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

7. **Applicant's amendment necessitated the new ground of rejection; therefore, THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE The application has been amended as follows:

ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Maid A. Banankhah** whose voice telephone number is (703) 308-6903. A voice mail service is also available at this number.

All response sent to U.S. Mail should be mailed to:

**Commissioner of Patent and Trademarks
Washington, D.C. 20231**

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.

Maid Banankhah

2/22/04

MAJID BANANKHAH
PRIMARY EXAMINER

